

Chapter 3

Field Artillery Weapon Systems

Section I

Introduction

3-1. Standards, strategies, and requirements

a. This chapter provides weapons standards, training strategies and resource requirements for units equipped with the 105mm Howitzer, 155mm Howitzer, and the Multiple Launch Rocket System (MLRS). The training programs provided have been specifically designed for each weapon system at four different training readiness conditions (TRC). Each program contains a standard and strategy which outlines the training sequence and includes suggested frequencies of live fire, subcaliber fire and device usage. Table 3-1 is an index of weapons and weapon systems for which training programs have been written and approved. The table provides cross reference entries to the standard and strategy for each specific weapon or weapon system.

b. The objective is to assist field commanders in attaining and sustaining their TRC standards and to develop acceptable levels of weapon proficiency in all units.

c. The training strategies in this chapter are based on exercises in current FMs, TCs, Artillery Tables, the Fire Support Combined Arms Training Strategy (CATS) and Army Mission Training Plans (MTP). The specifics of each exercise will not be presented here; the appropriate manual will have to be consulted.

3-2. Training devices

a. *General.* Historically, the Field Artillery has relied on extensive use of actual equipment and full caliber ammunition to train individuals, crews, batteries, and battalions. However, the escalating cost of ammunition, coupled with the fact that many critical tasks can be better trained using devices and simulators, has shifted the emphasis to a combination of full caliber and subcaliber ammunition, with devices and simulators being integrated throughout the training programs.

b. *Objective.* Training devices aid sustainment training in garrison or local training areas. Devices enhance and sustain skills and may be the sole medium for training certain critical tasks.

c. *Device list.* The following devices are an integral part of the training strategies. Full caliber ammunition requirements are based on using training devices, as presented in the strategies.

(1) *The Artillery Direct Fire Trainer (ADFT).* The ADFT trains gunnery procedures used in direct fire for 105mm and 155mm Howitzer units. The ADFT should be used prior to expenditure of full caliber ammunition. It should be used at least three times per year. It is available through the Training Audiovisual Support Center (TASC).

(2) *M823 Copperhead Training Projectile.* This is a TOE item fielded (three per 155mm Howitzer battalion) with the Ground/Vehicular Laser Locator Designator (G/VLLD) Copperhead system. Howitzer crews use the M823 to train cannoneers to prepare, load and extract the Copperhead round. Using the M823 three times per year during dry-fire training negates any requirement to handle or fire an actual Copperhead round in procedural training.

(3) *M31 Subcaliber Trainer.* The M31 trainer is issued one per battalion. Each trainer comes with two tripods and enough inbore adapters and barrels to outfit one battery. Firing tables and user manuals are provided as part of the M31 set. There is no M31 TACFIRE program; however, the Battery Computer System (BCS) does have an M31 program. When used as an artillery cannon procedural trainer, this device sustains observer, fire direction center and howitzer crew individual and collective tasks.

(4) *Training Set Fire Observation (TSFO).* The TSFO trains the Fire Support Team (FIST) and forward observer in the delivery-of-fire portions of the ARTEP tasks. It is designed to sustain observer proficiency between live fire exercises. Two TSFOs are fielded to each AC Division Artillery (DIVARTY) and FA brigade. Additional TSFOs are fielded to major RC training locations. Army Reserve and National Guard units use the Forward Observer Trainer (FOT) when a TSFO is not available.

(5) *Ground/Vehicular Laser Locator Designator-Evaluator (G/VLLD-E).* The G/VLLD-E is used with the G/VLLD tracking board to evaluate G/VLLD operator tracking skills. Units may train with the actual G/VLLD (with the shorting plug or safety filter installed) but must use the G/VLLD-E to evaluate operator tracking proficiency. One G/VLLD-E is fielded to each AC DIVARTY or FA brigade and should be used to evaluate G/VLLD operators every six months.

(6) *TASC Inert Training Projectile/Fuze.* TASC builds and issues inert training projectiles and fuzes which replicate actual howitzer projectiles and fuzes. These training projectiles allow crew members to practice fuzing operations and projectile marking recognition. These training projectiles should be used quarterly and are particularly useful prior to live-fire exercises (ATs, CALFEXs, EXEVALs).

(7) *MLRS Launch Pod/Container (LP/C) Trainer.* LP/C trainers are issued two per launcher. The LP/C trainer is an actual LP/C, but contains no actual rockets. The LP/C trainer gives indications of the operational condition of simulated rockets. An instructor or evaluator can simulate faults which will provide training for loading, off-loading, misfire and hang fire.

(8) *The MLRS Mass Simulator (MS)*. The TASC can produce a device which simulates the weight and handling characteristics of an actual LP/C. This device is used by ammunition personnel to perform all Heavy Expanded Mobility Ammunition Trailer (HEMAT) loading, unloading and tie-down operations required to transport the LP/C. The mass simulator cannot be loaded into the launcher.

(9) *Primers (155mm) and Shotgun Shells (105mm)*. Primers and shotgun shells replicate complete rounds during field training exercises and have been shown to be a viable training technique. The primers and shotgun shells are used in all aspects of the ammunition issue, resupply, accountability and expenditure system. The employment of this technique allows unit leaders to verify the various aspects of the ammunition management and supply system without the use of service ammunition.

(10) *Projectile, 155mm: Practice, M804 and M804A1*. The 155mm, M804/M804A1 projectile may be used in place of the M107, HE projectile for training in indirect fire of 155mm howitzers. The M804/M804A1 projectile contains a smoke canister in the fuze well, which provides for a visual determination of functioning. It can be used in training at less cost than an M107 projectile, without the blast and fragmentation which accompany functioning of an M107. (See TM 43-0001-28, page 3-159)

Section II

Training Programs

3-3. Development

Training programs have been developed for each TRC level. STRAC proficiency standards are in paragraph 3-5. Training strategies apply to training platoons, batteries and battalions. Proficiency is achieved through the use of dry fire exercises, subcaliber exercises, devices and full caliber live fire exercises. Ammunition requirements are included in each training strategy.

3-4. Purpose and objectives of the training strategies.

Training strategies provide a method for attaining and sustaining weapons proficiency throughout the training year.

3-5. Proficiency standards.

a. Cannon.

(1) *TRC A*. Each platoon, battery and battalion must live-fire 80 percent of their Mission Essential Task List (METL) related fire missions to ARTEP MTP standards twice annually.

b. (Cannon) As a part of a platoon, or larger unit, each section must live-fire 80 percent of their mission essential task list- (METL-) related fire missions to ARTEP MTP standards *twice* annually for *AC (TRC A) units*

(2) *TRC B*. Each platoon, battery and battalion must live fire 80 percent of their METL related fire missions to ARTEP MTP standards annually.

(3) *TRC C*. Each platoon, battery and battalion must live fire 80 percent of their METL related fire missions to ARTEP MTP standards annually.

(3a) Each platoon, battery and battalion must live fire *once* annually for *RC (TRC C) units*. USAR training battalions will train those events as outlined in tables 3-26 and 3-27. Committees will be resourced with the ammunition listed in the tables.

(4) *TRC D*. USAR Training Battalions will train those events as outlined in tables 3-26 and 3-27. Committees will be resourced with one HE round/student.

A1. LID Battery

(1) As a part of a platoon, or larger unit, each section must live-fire 80 percent of their mission essential task list- (METL-) related fire missions to ARTEP MTP standards *twice* annually for *AC (TRC A) units* and *once* annually for *RC (TRC C) units*. USAR training battalions will train those events as outlined in tables 3-26 and 3-27. Committees will be resourced with the ammunition listed in the tables.

b. Multiple Launch Rocket System.

(1) As a part of a platoon, or larger unit, each section must live-fire 80 percent of their METL-related fire missions to ARTEP MTP standards *twice* annually for *AC (TRC A) units* and *once* annually for *RC (TRC C) units*.

3-6. Rocket Assisted Projectile (RAP)

RAP rounds are available in limited quantities to establish soldier confidence in the weapon system. Commanders are authorized to requisition 2 Rocket Assisted Projectile (RAP) rounds per tube annually for 155mm howitzers. Unit commanders must take a hard look at the training value gained since four HE rounds must be traded for each RAP round required. Ammunition requirements for RAP firing are given in applicable tables for 155mm howitzer weapon systems.

3-7. Close support/special munitions

a. Close Support (CS)

Close Support tasks are included in 105mm Howitzer battalion table 3-3. These tasks satisfy the mission to provide close-in fires in support of light infantry units.

b. Special Munitions

Special munitions tasks (smoke, WP, Illumination) have been given a separate Table VIII entry in the cannon descriptive training strategy tables. This entry reflects the different frequency in which these special munitions missions are resourced.

Table 3-1**Field Artillery Weapon System Training Index****Branch Specific Weapon Systems**

Weapon	Paragraph	TABLE
105 Howitzer	3-5	3-2, 3-3, 3-4 3-5
155 Howitzer	3-5	3-2, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11,3-12, 3-13
155 How (Cav)	3-5	3-2, 3-14, 3-15 3-16
155 How SEP Btry-LID	3-5	3-2, 3-17, 3-18
MLRS	3-5	3-19, 3-20, 3-21,

MLRS 2x6/3x6

TRC D	3-5	3-25,3-26
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Other Weapons Systems

AT-4	5-6	5-23
Rifle (M16A1/A2)	5-9	5-39
Grenade Launcher (M203)	5-9	5-44
Machine Gun (M60/M240B)	5-8	5-30
Machine Gun (M2HB)	5-8	5-33
Submachine Gun (M3A1)	5-9	5-42
Pistols	5-9	5-45
Hand Grenades (M228/M67)	5-9	5-48
Claymore Mine (M18A1)	5-9	5-50
Pyrotechnics	8-1	8-9 thru 8-12

Table 3-2**Annual Crew/Section/Team Training (105/155mm; TRC A)**

Event	Frequency	Who
Tactical Techniques	12	How crew
ADFT	3	How crew
Copperhead (M823)	3	How crew
M31	1	How crew
TSFO	4	FIST Team
M31	1	FIST Team
G/VLLD-E	2	FIST Team
C/DF	12	FDC Section
M31	1	FDC Section

Annual Crew/Section/Team Training (105/155mm; TRC C)

Event	Frequency	Who
Tactical Techniques	12	How crew
ADFT	3	How crew
M31	1	How crew
TSFO	6	FIST Team
M31	1	FIST Team
M31	1	FDC Section
C/DF	12	FDC Section

Table 3-3

105mm How Battalion Annual Requirements to Train Fire Tasks (Fire Missions) identified in MTP

3 X 6 TRC A&B/C

Fire Mission	CS ¹	Btry	Bn
Echelons Above Bn Mass			X
FFE (Bn Mass)			X
Engage a Moving Target Array		X	X
Low Angle Adjust	X	X	X
Precision Reg		X	X
High Burst/MPI		X	X
High Angle Adjust (Radar or FO)		X	X
Coordinated Illum	X		X
FPF Adjust	X	X	
Simultaneous Mission	X	X	
Emergency Mission		X	
Quick Smoke		X	
Irregularly Shaped Target			X
TOT	X	X	X
Schedule of Fires	X	X	X
Immediate Suppression	X	X	
Priority Target	X	X	
Illumination		X	
Direct Fire		X	
MET + VE		X	X
MET to Target (outside transfer limits)			X
Smoke	X	X	
Immediate Smoke	X	X	
FFE Mass		X	
Sweep and Zone	X	X	
Assault Fire	X	X	
FFE Chemical		X	X
FFE ICM		X	X

Note:

1. Close Support

Table 3-4

Ammunition Requirements per 105mm How Battalion (3x6: TRC A)
 Artillery Table Descriptive Training Strategy

Artillery Table/Event	Freq	Critical Gates	.10 Gage ¹ Shot Gun A010	HE C445	Smoke C452	WP C454	EXT RNG C463 ⁶	ILLUM C449
DODIC								
VII	6		48				6 ⁶	
VIII	6	AT II&VII		86				
VIII Special ⁵	4	AT II&VII		8	6	6		12
X	5		144					
XI	5	AT II&X		223	0	6	6 ⁶	18
Btry EXEVAL	1			94	6	6		12
Btry CALFEX	7			71	6	0		18
Bn EXEVAL	1			223	0	6		18
Bn CALFEX	1			223	0	6		18
TOTALS:								
Total per Battery ² (AT VII, VIII, CALFEX, and EXEVAL)			288	1157	72	30	6	186
Total Battery (3 Btrys)			864	3471	216	90	18	558
Total Battalion Training			720	1561	0	42	18	126
Battalion Total ^{3, 4, 6}			1584	5032	216	132	36	684

Notes:

1. Shot gun shells for use in training during nonfiring exercises: AT VII's receive 60; AT X's receive 120.
2. Includes 18 rounds for annual direct fire exercise.
4. Fuzes to be used are Type(DODIC): PD(N340), Time(N285), MTSQ(N286), VT(N464).
5. Special Munition Training Strategy (Smoke, WP, Illum) .
6. Each tube receives annually one extended range round (C463) each in Tables VII and XI.

Table 3-5

Ammunition Requirements per 105mm How Battalion (3x6: TRC B/C)
 Artillery Table Descriptive Training Strategy

Artillery Table/Event	Freq	Critical Gates	.10 Gage ¹ Shot Gun A010	HE C445	Smoke C452	WP C454	ILLUM C449
DODIC							
VII	4		48				
VIII	4	AT II&VII		59			
VIII Special ⁴	3	AT II&VII		14	6	6	12
X	5		210				
XI	1	AT II&X		166	0	6	18
Btry EXEVAL	1			73	6	6	12
Btry CALFEX	5			45	0	0	18
Bn EXEVAL	1			166	0	6	18
TOTALS:							
Total per Battery (AT VII, VIII, CALFEX, and EXEVAL)			192	576	24	24	138
Total Battery Tn (3 Btrys)			576	1728	72	72	414
Total Battalion Tng			1050	332	0	12	36
Battalion Total ^{2,3}			1626	2060	72	84	450

Notes:

1. Shot gun shells for use in training during nonfiring exercises: AT VII's receive 60; AT X's receive 120.
3. Fuzes to be used are Type(DODIC): PD(N340), Time(N285), MTSQ(N286), VT(N464).
4. Special Munition Training Strategy (Smoke, WP, Illum) .

Table 3-6

155mm How Battalion Annual Requirements to Train Fire Tasks (Fire Missions) identified in MTP

Fire Mission	3 X 6 TRC			CAV Btry		SEP Btry (1X8)			(LID) A & B/C		
	A & B/C			A & B/C		A & B/C			(LID) A & B/C		
	Plt	Btry	Bn	Btry	Bn	Plt	Btry	Bn	Plt	Btry	Bn
Echelons Above Bn Mass			X		X			X			X
FFE (Bn Mass)			X		X			X			X
Engage a Moving Target Array			X	X	X	X	X		X	X	
Low Angle Adjust	X	X	X	X	X	X	X		X	X	X
Precision Reg	X	X	X	X	X	X	X	X			
High Burst/MPI	X	X	X	X	X	X	X	X			
High Angle Adjust											
(Radar or FO)	X	X	X	X	X	X	X	X	X	X	
Coordinated Illum			X		X			X			X
FPF Adjust	X	X		X	X	X	X		X	X	
Simultaneous Mission			X		X			X			X
Emergency Mission	X	X		X		X	X		X	X	
Quick Smoke		X		X			X			X	
Irregularly Shaped Target			X		X			X			X
TOT	X	X	X	X	X	X	X	X	X	X	X
Schedule of Fires	X	X	X	X	X	X	X	X	X	X	X
Immediate Suppression	X	X		X	X	X	X		X	X	
Priority Target	X	X		X	X	X	X		X	X	
Illumination		X		X			X			X	
Direct Fire		X		X			X			X	
MET + VE	X	X	X	X	X	X	X	X	X	X	X
MET to Target											
(outside transfer limits)					X			X			X
Smoke	X	X		X		X	X		X	X	
Immediate Smoke	X	X		X		X	X		X	X	
FFE RAP ¹	X	X		X		X	X		X	X	
FFE Mass	X	X		X		X	X		X	X	
Sweep and Zone	X	X		X		X	X		X	X	
Assault Fire	X	X		X		X	X		X	X	
FFE Copperhead	X	X		X		X	X		X	X	
FFE Chemical	X	X	X	X	X	X	X	X	X	X	
FFE ICM	X	X	X	X	X	X	X	X	X	X	X
FFE FASCAM	X	X	X	X	X	X	X	X	X	X	X

Note:

1. RAP authorization is based on a four HE to one RAP tradeoff. Unit commanders will determine which HE missions will be sacrificed if RAP is fired. Annual RAP ammunition forecasts must include forecasts for the appropriate charges.

3-11

Ammunition Requirements per 155mm Direct Support How Battalion (3x6: TRC A)
 Artillery Table Descriptive Training Strategy

Artillery		Critical			HE		Smoke		WP		Illum		RAP
Table/Event	Freq	Gates		Primes ¹									
DODIC				N523		D544	D528		D550		D505		D579
IV	2			100									
V	2	AT II&IV			50		0		0		0		
VII	3			100									
VIII	3	II&VII			69								
VIII Special Munition ⁶	2	II&VII			8		6		6		12		
X	5			350									
XI	5	AT II&X			173		0		6		18		
Btry EXEVAL	1				77		6		6		12		
Btry CALFEX	1				77		6		6		12		12
Bn EXEVAL	1				173		0		6		18		
Bn CALFEX	1				173				6		18		
TOTALS:													
Total per Platoon (ATIV&V)				200	100		0		0		0		
Total Platoon Tng (6 Platoons)				1200	600		0		0		0		
Total per Battery ²													
(AT VII, VIII, CALFEX, and EXEVAL)				300	425		24		24		48		12
Total Battery Tng				900	1275		72		72		144		36
Total Battalion Tng				1750	1211		0		42		270		0
Battalion Total ^{3,4}				3850	3086		72		114		270		36

Notes:

1. Primers are for use in training during nonfiring exercises: AT IVs receive 100; AT VIIIs - 100; AT Xs - 350.

2. Units that do not employ platoons will not use ATs III, IV and V. These units will increase the frequency of ATs VI, VII and VIII from three to five.

3. Includes **18 HE** rounds for an annual direct fire exercise.

5. Fuzes to be used are Type(DODIC): PD(N340), Time(N285), MTSQ(N286), VT(N464).

6. Propellant charges by Type (DODIC): Green Bag (D540); White Bag (D541); and Red Bag (D533).

7. Special Munition Training Strategy (Smoke, WP, Illum) .

3-12

Ammunition Requirements per 155mm General Support How Battalion (3x6: TRC A)

Artillery Table Descriptive Training Strategy

Artillery			Critical			HE		Smoke		WP		ILLUM		RAP
Table/Event		Freq	Gates		Primers ¹									
DODIC					N523	D544		D528		D550		D505		D579
IV		2			100									
V		2	(AT II&IV)			50		0		0		0		
VII		3			100									
VIII		3	II & VII			75								
VIII Special Munition ⁶		2	II&VII			8		8		6		12		
X		5			350									
XI		5	AT II&X			173		0		6		18		
Btry EXEVAL		1				83		8		6		12		
Btry CALFEX		1				83				6		12		12
Bn EXEVAL		1				173		0		6		18		
TOTALS:														
Total per Platoon (AT IV & V)					200	100								
Total Platoon (6 Platoons)					1200	600								
Total per Battery ²														
(AT VII, VIII, CALFEX, and EXEVAL)					300	425		24		24		48		12
(3 Btry's)					900	1275		72		72		144		36
Total Battalion Tng					1750	1038		0		36		108		0
Battalion Total ^{3,4,5}					3850	2913		72		108		252		36

Notes:

1. Primers are for use in training during nonfiring exercises: AT IVs receive 100; AT VIIIs - 100; AT Xs - 350.

2. Units that do not employ platoons will not use ATs III, IV and V. These units will increase the frequency of ATs VI, VII and VIII from three to five.

3. Includes **18 HE** rounds for an annual direct fire exercise.

5. Fuzes to be used are Type(DODIC): PD(N340), Time(N285), MTSQ(N286), VT(N464).

6. Propellant charges by Type (DODIC): Green Bag (D540); White Bag (D541); and Red Bag (D533).

7. Special Munition Training Strategy (Smoke, WP, Illum) .

Table 3-13

Ammunition Requirements per 155mm Direct Support/General Support How Battalion (3x6: TRC B/C)
 Artillery Table Descriptive Training Strategy

Artillery		Critical			HE	Smoke	WP	ILLUM	RAP
Table/Event	Freq	Gates	Primers ¹						
DODIC			N523		D544	D528	D550	D505	D579
IV	2		100						
V	1	AT II&IV			27	0	0	0	
VII	3		100						
VIII	2	II & VII			57				
VIII Special Munition ⁵	1	II & VII			8	8	6	12	0
X	5		350						
XI	1	AT II&X			95	0	6	0	
Btry EXEVAL	1				65	6	6	12	
Btry CALFEX	1				65	6	6	12	12
Bn EXEVAL	1				95	0	6	0	
TOTALS:									
Total per Platoon (AT IV&V)			200		27	0	0	0	0
Total Platoon (6 Platoons)			1200		162	0	0	0	0
Total per Battery									
(AT VII, VIII, CALFEX, and EXEVAL)			300		252	20	18	36	12
Total Battery Tng (3 Btrys)			900		756	60	54	108	36
Total Battalion Tng (1750		190	0	12	0	0
Battalion Total ^{2, 3, 4}			3850		1108	60	66	108	36

Notes:

1. 1. Primers are for use in training during nonfiring exercises: AT IVs receive 100; AT VIIs - 100; AT Xs - 350.
 2. Units that do not employ platoons will not use ATs III, IV and V. These units will increase the frequency of ATs VI, VII and VIII from three to five.
4. Fuzes to be used are Type(DODIC): PD(N340), Time(N285), MTSQ(N286), VT(N464).
5. Propellant charges by Type (DODIC): Green Bag (D540); White Bag (D541); and Red Bag (D533).
6. Special Munition Training Strategy (Smoke, WP, Illum) .

Table 3-14

Table 3-Cav-Sep A Ammunition Requirements per 155-mm Cav/Seprv How Btry (1x6: TRC A) Artillery Table Descriptive Training Strategy

Artillery Table/Event	Freq	Artillery Table Critical Gates	Ammunition Type, Quantity, and DODIC						
			Primers ¹ N523	HE D544	Smoke D528	WP D550	Illum D505	RAP D579	CPHD D510
IV ²	2		100						
V ³	2	AT II & IV		40					
VII	3		100						
VIII ³	3	AT II & VII		73					
VIII Special Missions ⁴	2	AT II & VII		8	8	6		12	
X	5		350						
XI ³	5			76		6	16		
Btry EXEVAL	1			81	8	6			
Btry CALFEX	1			81	8	6			
Bn EXEVAL	1			76		6	16		
Bn CALFEX	1			76		6	16		
Copperhead Tng	1								2
Totals:									
Total per platoon (ATs IV/V)			200	80					
Total platoon tng (2 platoons)			400	160					
Total for battery training ⁵ (AT VII/VIII/ CALFEX & EXEVAL)			300	415	32	24		12	
Total for battalion training			1750	532		42	112		2
Total for training ^{6,7}			2450	1107	32	66	112	12	2

Notes:

- Primers are used in training during non-firing exercises: AT IVs receive 100; AT VIIs—100; AT Xs—350.
- Units that do not employ platoons will not use ATs III, IV, and V. These units will increase the frequency of ATs VI, VII, and VIII from five to seven.
- Based on the commander's determination of the level of training of the unit, some iterations of this table may be trained through the use of TADSS. See Table 3-1 for TADSS listing. Ammunition saved by this determination can be used in combined arms training or training fire mission types not otherwise resourced in STRAC.
- Special munitions training strategy (smoke, WP, illum).
- Includes 18 rounds for an annual direct fire exercise.
- Fuzes to be used are Type (DODIC): PD (N340); Time (N285); MTSQ (N286); VT (N464).
- Propellant charges by Type (DODIC); green bag (D540); white bag (D541); and red bag (D533).

Table 3-Cav/Sep C Ammunition Requirements per 155-mm Cav/Sep How Btry (1x6: TRC C) Artillery Table Descriptive Training Strategy

Artillery Table/Event	Freq	Artillery Table Critical Gates	Ammunition Type, Quantity, and DODIC						
			Primers ¹ N523	HE D544	Smoke D528	WP D550	Illum D505	RAP D579	CPHD D510
IV ²	2		100						
V ³	1	AT II & IV		41					
VII	3		100						
VIII ³	2	AT II & VII		57					
VIII Special Missions ⁴	1	AT II & VII		8	6	6	12	12	
X	5		350						
XI ³	1			24		6			
Btry EXEVAL	1			65	6	6	12		
Btry CALFEX	1			65	6	6	12		
Bn EXEVAL or CALFEX	1			24		6			
Copperhead Tng	1								2
Totals:									
Total per platoon (ATs IV/V)			200	41					
Total platoon tng (2 platoons)			400	82					
Total for battery training ⁵ (AT VII/VIII/ CALFEX & EXEVAL)			500	270	18	18	36	12	
Total for battalion training			1750	48		12			2
Total for training ^{6, 7}			2650	400	18	30	36	12	2

Notes:

1 Primers are used in training during non-firing exercises: AT IVs receive 100; AT VIIs—100; AT Xs—350.

2 Units that do not employ platoons will not use ATs III, IV, and V. These units will increase the frequency of ATs VI, VII, and VIII from five to seven.

3 Based on the commander's determination of the level of training of the unit, some iterations of this table may be trained through the use of TADSS. See Table 3-1 for TADSS listing. Ammunition saved by this determination can be used in combined arms training or training fire mission types not otherwise resourced in STRAC.

4 Special munitions training strategy (smoke, WP, illum).

5 Includes 18 rounds for an annual direct fire exercise.

6 Fuzes to be used are Type (DODIC): PD (N340); Time (N285); MTSQ (N286); VT (N464).

7 Propellant charges by Type (DODIC); green bag (D540); white bag (D541); and red bag (D533).

Table 3-16

Ammunition Requirements per 155 Cavalry/Separate How Battery (1x6:TRC B/C)

Artillery Table Descriptive Training Strategy

Artillery		Critical			HE	Smoke	WP	ILLUM	RAP	
Table/Event	Freq	Gates		Primers 1						
DODIC				N523	D544	D528	D550	D505	D579	
IV	2			100						
V	1	AT II&IV			41					
VII	3			100						
VIII	2	II & VII			57					
VIII Special Munition ⁵	1	II & VII			8	6	6	12	12	
X	5			350						
XI	1	AT II&X			24	0	6	0		
Btry EXEVAL	1				65	6	6	12		
Btry CALFEX	1				65	6	6	12		
Bn EXEVAL/CALFEX	1				24	0	6	0		
TOTALS:										
Total per Platoon				200	41					
Total Platoon (2 Platoons)				400	82					
Total per Battery (AT VII&VIII				300	252					
Calfex and Exeval)				700	334	18	18	36	12	
Total Battalion Tng				1750	48	0	12	0	0	
Battalion Total ^{2,3,4}				2450	382	18	30	36	12	

Notes:

1. Primers are for use in training during nonfiring exercises: AT IVs receive 120; AT VIIs - 160; AT Xs - 224.
3. Fuzes to be used are Type(DODIC): PD(N340), Time(N285), MTSQ(N286), VT(N464).
4. Propellant charges by Type (DODIC): Green Bag (D540); White Bag (D541); and Red Bag (D533).
5. Special Munition Training Strategy (Smoke, WP, Illum, RAP) .

Table 3-LID A Ammunition Requirements per 155-mm LID How Btry (1x6: TRC A) Artillery Table Descriptive Training Strategy

Artillery Table/Event	Freq	Artillery Table Critical Gates	Ammunition Type, Quantity, and DODIC						CPHD D510
			Primers ¹	HE D544	Smoke D528	WP D550	Illum D505	RAP D579	
IV ²	2		100						
V ³	2	AT II & IV		40					
VII	5		100						
VIII ³	5	AT II & VII		75					
VIII Special Missions ⁴	2	AT II & VII		8	6	6		12	
X	5		350						
XI ³	5			69		6	15		
Btry EXEVAL	1			83	6	6			
Btry CALFEX	7			75	6	6			
Bn EXEVAL	1			69		6	15		
Bn CALFEX	1			69		6	15		
Copperhead Tng	1								2
Totals:									
Total per platoon (ATs IV/V)			200	80					
Total platoon tng (2 platoons)			400	160					
Total for battery training 5 (AT VII/VIII/ CALFEX & EXEVAL)			500	1017	60	60		12	
Total for battalion training			1750	483		42	105		2
Total for training ^{6, 7}			2650	1660	60	102	105	12	2

Notes:

- Primers are used in training during non-firing exercises: AT IVs receive 100; AT VIIs—100; AT Xs—350.
- Units that do not employ platoons will not use ATs III, IV, and V. These units will increase the frequency of ATs VI, VII, and VIII from five to seven.
- Based on the commander's determination of the level of training of the unit, some iterations of this table may be trained through the use of TADSS. See Table 3-1 for TADSS listing. Ammunition saved by this determination can be used in combined arms t
- Special munitions training strategy (smoke, WP, illum).
- Includes 18 rounds for an annual direct fire exercise.
- Fuzes to be used are Type (DODIC): PD (N340); Time (N285); MTSQ (N286); VT (N464).
- Propellant charges by Type (DODIC); green bag (D540); white bag (D541); and red bag (D533).

Table 3-LID C Ammunition Requirements per 155-mm LID How Btry (1x6: TRC C) Artillery Table Descriptive Training Strategy

Artillery Table/Event	Freq	Artillery Table Critical Gates	Ammunition Type, Quantity, and DODIC						CPHD D510
			Primers ¹ N523	HE D544	Smoke D528	WP D550	Illum D505	RAP D579	
IV ²	2		100						
V ³	1	AT II & IV		40					
VII	5		100						
VIII ³	3	AT II & VII		75					
VIII Special Missions ⁴	1	AT II & VII		8	6	6		12	
X	5		350						
XI ³	2			69		6	15		
Btry EXEVAL or CALFEX	4			83	6	6			
Bn EXEVAL or CALFEX	1			69		6	15		
Copperhead Tng	1								2
Totals:									
Total per platoon (ATs IV/V)			200	40					
Total platoon tng (2 platoons)			400	80					
Total for battery training 5 (AT VII/VIII/ CALFEX & EXEVAL)			500	583	30	30		12	
Total for battalion training			1750	207		18	45		2
Total for training ^{6, 7}			2650	870	30	48	45	12	2

Notes:

- Primers are used in training during non-firing exercises: AT IVs receive 100; AT VIIs—100; AT Xs—350.
- Units that do not employ platoons will not use ATs III, IV, and V. These units will increase the frequency of ATs VI, VII, and VIII from five to seven.
- Based on the commander's determination of the level of training of the unit, some iterations of this table may be trained through the use of TADSS. See Table 3-1 for TADSS listing. Ammunition saved by this determination can be used in combined arms t
- Special munitions training strategy (smoke, WP, illum).
- Includes 18 rounds for an annual direct fire exercise.
- Fuzes to be used are Type (DODIC): PD (N340); Time (N285); MTSQ (N286); VT (N464).
- Propellant charges by Type (DODIC); green bag (D540); white bag (D541); and red bag (D533).

Table 3-19

Annual Crew / Section Training Strategy (MLRS:TRC A/C)
 Artillery Table Descriptive Training Strategy

<u>Artillery Tables</u>					
				<u>Rounds per Mission</u>	
EVENT	VIII	XI		Btry	Bn
On Call (ONC)	X	X		2	3
Fire When Ready (FWR)	X	X		2	6
At My Command (AMC)	X	X		2	6
Time On Target (TOT)	X	X		2	6
Time To Fire (TTF)	X	X		3	6
Timed Time on Target (TTT)	X	X		3	9
Timed When Ready (TWR)	X	X		3	9
Multiple Fire Mission Sequence	X	X		4	18
Schedule of Fires	X	X		6	18
TOTALS:				27	81

Table 3-20

Annual ammunition Requirements per MLRS Battery (1X9:TRC A)
 Artillery Table Descriptive Training Strategy

<u>Artillery Tables</u>		<u>Rounds per Mission</u>			
		Critical			
Events	Freq	Gates		Number of	Rockets
IV	4				
V	1				
VII	4				
VIII	1	AT VII		27	
Btry Exeval	1			27	
Btry CALFEX	0			0	
Totals					
Total Btry Tng (AT VIII)				54	

Table 3-21

Annual Ammunition requirements per MLRS Battery (1X9:TRC C)

Artillery Table Descriptive Training Strategy

Artillery Tables

Rounds per Mission

			Critical		Number of Rockets		
Events		Freq	Gates				
IV		4					
V		1			0		
VII		4					
VIII		1	AT VII		27		
Btry Exeval		1			0		
Btry CALFEX		1			0		
Totals							
Total Btry Tng (AT VIII)					27		

Table 3-2X6 A. MLRS Artillery Battalion (2X6 TRC A) Artillery Table Descriptive Training Strategy (9 ROCKETS/LAUNCHER)

	EVENT			ITERATIONS		
MISSION	XII	XV	XVIII	Plt	Btry	Bn
Fire When Ready (FWR)	X	X		1	1	
At My Command (AMC)	X	X		1	1	
Time On Target (TOT)	X	X		1	1	
Time To Fire (TTF)	X		X	1		
Schedule of Fires (2 targets per schedule)			X			2
TOTALS: Rockets per launcher				4	3	2
ECHELON	LAUNCHERS	ELEMENTS	ROCKETS			
Platoon	2	6	48			
Battery	6	2	36			
Battalion	12	1	24			
				RKTS PER LCHR CHECK		
TOTAL ROCKETS			108		9	

Table 3-3X6 C. MLRS Artillery Battalion (3X6 TRC C) Artillery Table Descriptive Training Strategy
(4 ROCKETS/LAUNCHER)

MISSION	EVENT			ITERATIONS		
	VIII	XV	XVIII	Sec	Btry	Bn
Fire When Ready (FWR)	X			1		
At My Command (AMC)	X			1		
Time On Target (TOT)		X			1	
Time To Fire (TTF)						
Schedule of Fires			X			1
TOTALS:				2	1	1
ECHELON	LAUNCHERS	ELEMENTS	ROCKETS			
Section	1	18	36			
Battery	6	3	18			
Battalion	18	1	18			
				RKTS PER LNCHR CHECK		
TOTAL ROCKETS			72		4	

Table 3-25

Annual Training Strategy (SL 1 and 2) TRC D USAR Training Battalion

Event	Frequency	Who
Tactical Techniques	1	All
ADFT	1	All
M31	1	All
LFX	1	All

Annual Training Strategy (SL 3 and 4) TRC D USAR Training Battalion

Event	Frequency	Who
Tactical Techniques	2	All
LFX	1	All

Table 3-26

Annual Ammunition Requirements per Individual (105/155mm) TRC D USAR Training Battalion

Ammo	Phase		
	I	II	III
105mm HE	6	1	3
155mm HE	6	1	3
WP		0.1	0.1
Illum		0.1	0.1
Smoke		0.1	0.1